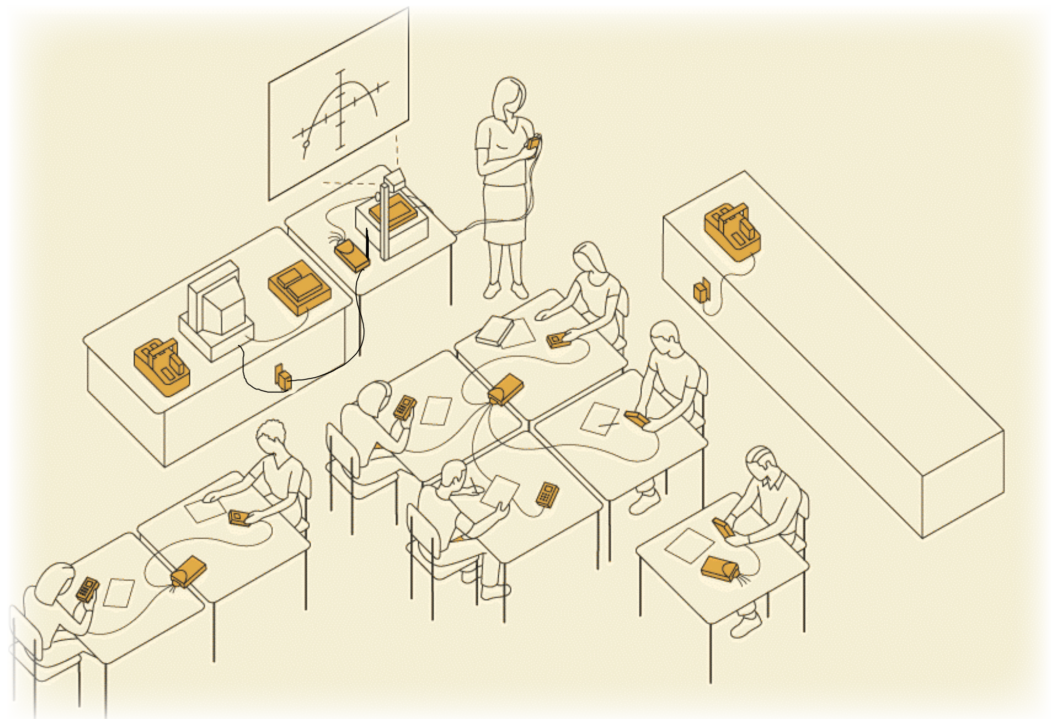


MathForward™

District Report



Richardson, Texas Independent School District

September 2008

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Richardson, Texas Independent School District

District Context

Richardson Independent School District is located in a suburban community of just under 100,000 residents in the Dallas (TX) metropolitan area. The district is ethnically diverse, with large numbers of White, African American, and Hispanic students. Just over a third of students in participating schools were eligible for free or reduced price lunches. Relative to other districts in the state, mathematics scores in Richardson are above average. A total of 13 schools in the district participated in MathForward™ in 2007-08: 8 were middle schools, 4 were high schools, and 1 was a center serving freshmen. For the district, it was the third year of participation in the program.

Table 1. Characteristics of Students in the Participating Schools in the District

	Faircrest Memorial Middle School
Ethnicity	Percent of Students
African American	25%
Hispanic	23%
White	43%
Asian/Pacific Islander	9.0%
Native American	0.5%
Free or Reduced Price Lunch	37%
English Language Learners	26%
Students with Disabilities	2%

Implementation of MathForward™

In 2007-08, Richardson's implementation was congruent with the MathForward™ program design, except that teachers had limited time to plan for implementation in common planning periods.

Professional Development	All teachers participated in initial workshops, and nearly all participated in follow up workshops. In addition, by 2007-08, four-fifths of teachers had participated in content-related workshops.
Block Scheduling	All schools implemented double blocks of mathematics instruction for students in the program, who were exposed to 7 or more hours of instruction in mathematics each week.
How Teachers Are Using TI-Navigator™ in Classes	Teachers in RISD schools made use of the full range of TI-Navigator™ functionality. Two-thirds also used Navigator™ to help foster student discussion, and nearly all teachers made less use of the technology to support adjusting instruction on average. Teachers infrequently used results to adjust instruction when they used TI-Navigator™.
Teacher Common Work Time	About one quarter of teachers reported they had had common planning periods they used to discuss MathForward™. As part of these periods, teachers reported discussing lessons they had used that worked well with students.

Achievement Results

The overall gains made in mathematics by MathForward™ students on the Texas Assessment of Knowledge and Skills (TAKS) were significantly greater than for comparison students, who differed from the program students in that they were higher-achieving and less likely to be minority students. The gains of MathForward™ students were greatest in 7th grade, relative to the other two grades that participated. African American students in the program made greater gains than African American students not in the program, indicating that program participation was associated with lower achievement gaps for that group. These findings are consistent with prior studies in Richardson that showed the promise of the intervention for improving achievement of participating students.

Figure 1. Overall Results for Richardson Students (TAKS Scores, 2007 to 2008)

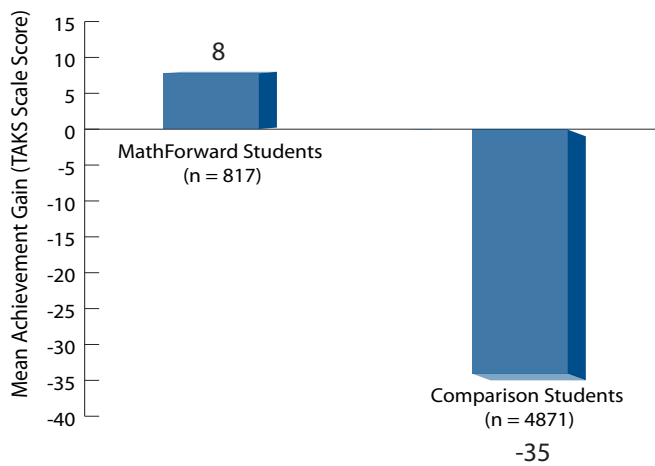
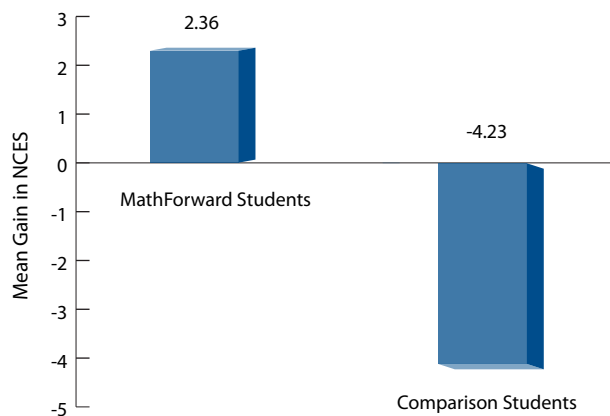
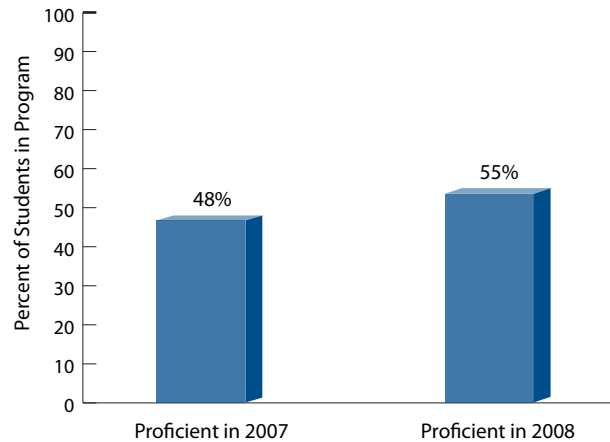


Figure 2. Gains for African American Students



Among the MathForward™ students, 55 percent of students scored proficient or higher in mathematics in spring 2008, compared to 48 percent the year before.

Figure 3. Percent Meeting Proficiency Standards in 2007 and 2008 (TAKS)



Richardson is a case of a district where implementation was strong, and where the sample size of the MathForward™ group was large enough to detect significant effects. At the same time, the MathForward™ students were intentionally selected to be different from comparison students, so selection may have influenced the results. Our analyses controlled for prior achievement as a way to mitigate selection effects, but statistical controls do not compensate for threats to validity that could be reduced through different kinds of research designs.



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